

STATE OF UTAH GENERAL OUTLOOK

Jan 1, 2004

SUMMARY

Water year 2004 has been fantastic so far! All areas of the state except the Escalante currently have snowpacks that are above average, perhaps a little light at the end of a long tunnel. There is still more than 50% of the snowpack accumulation season remaining and any outcome is still possible, but having 1.5 to 2 times the snowpack that Utah had last January is certainly a great start. Snowpack is the driving mechanism to Utah's water supply and the state needs a much greater than normal snowpack year to begin the repair of other drought induced water supply problems such as low reservoir storage, soil moisture and aquifer levels. In many areas, multiple above average snowpack years will be needed to fill reservoirs and aquifers. A case in point is the Bear River watershed: recent USGS streamflow data at the Utah/Wyoming Stateline gage showed 40 second feet while at the Woodruff gage many miles downstream, the flow was only 20 second feet. This indicates a losing stream-reach – water going from the river to recharge soil moisture and aquifer levels. Last year, observed Bear Lake inflow was only 8,000 acre feet, while at the Stateline gage, there was 83,000 acre-feet of water, 10 times more than at the downstream location – essentially a river in reverse. These conditions are not just affecting the Bear River, but other major river systems in Utah as well and could persist until aquifer levels are restored. Snowpacks in northern Utah range from 111% to 135% of average and in southern Utah, from 80% to 120% of normal. Given average snowpack accumulation between now and April 1, the state will have about 109% of average, given maximum accumulation – 170% of average and given minimum accumulation, at 79% of average snowpack. Precipitation for December was much above average state wide, ranging from 126% to 171% of average, bringing seasonal precipitation, (Oct-Dec) to 106%. Soil moisture deficits in runoff producing areas across the state range from 6 to 9 inches in the upper 2 feet of soil – similar to deficits of last year. Streamflow forecasts are scattered across the spectrum, ranging from 19% to 129% of average. Reservoir storage in 41 major reservoirs across the state is at 38% of capacity, down 9% from last year which is about 481,000 acre feet. 481 KAF is roughly 80,000 acre feet more water than the entire Sevier River reservoir storage capacity. Reservoir storage is down 1,557,000 acre feet (29%) from 2001 levels, reflecting the persistent nature of this drought. Surface Water Supply Indexes range from 2% on the Bear River to 73% over the western part of the Uintah Basin.

SNOWPACK

January first snowpacks as measured by the NRCS SNOTEL system range from 107% in southern Utah to 135% on the Utah Lake watershed. The lowest snowpacks are on the Escalante at 80% of average. This is the best January 1 snowpack on every watershed statewide since 1997. There is still some concern about lower elevation snowpacks in southern Utah. Statewide, snowpacks are at 123% of average, a welcome respite from years of below normal conditions.

PRECIPITATION

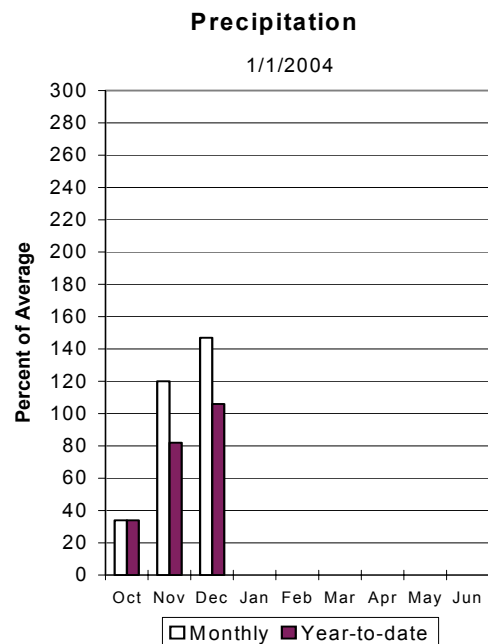
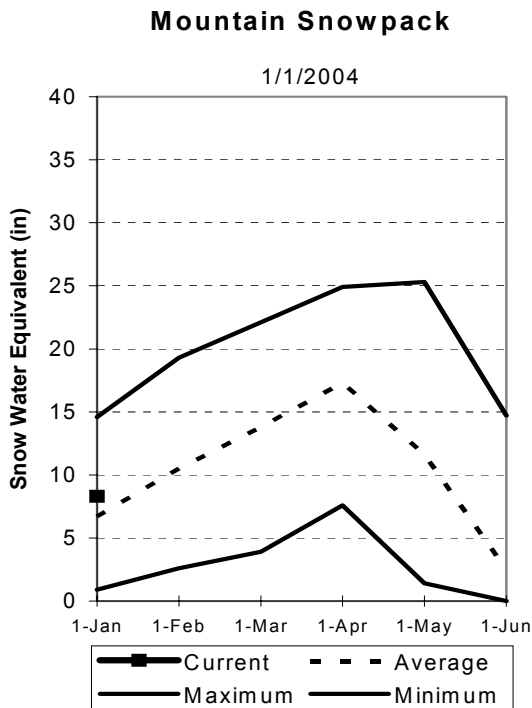
Mountain precipitation during December was much above average (147%) statewide. In northern Utah precipitation ranged from 126% on the Bear to 155% on the Provo. Southern Utah had precipitation values ranging from 149% in the southeast to 171% over the Sevier watershed. This brings the seasonal accumulation (Oct-Dec) to 106% of average statewide.

RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 38% of capacity. This is down substantially from last year indicating heavy use of reservoir storage to make up the streamflow deficit. Most reservoir operators are utilizing a conservative strategy, storing as much water as possible.

STREAMFLOW

Snowmelt streamflows are expected to be much below to near average across the entire state of Utah this year. Forecast streamflows range from 19% on the Bear at Stewart dam to 129% on Wheeler Creek. Most flows are forecast to be in the 80% to 100% range. Overall water supply conditions are below to near normal.



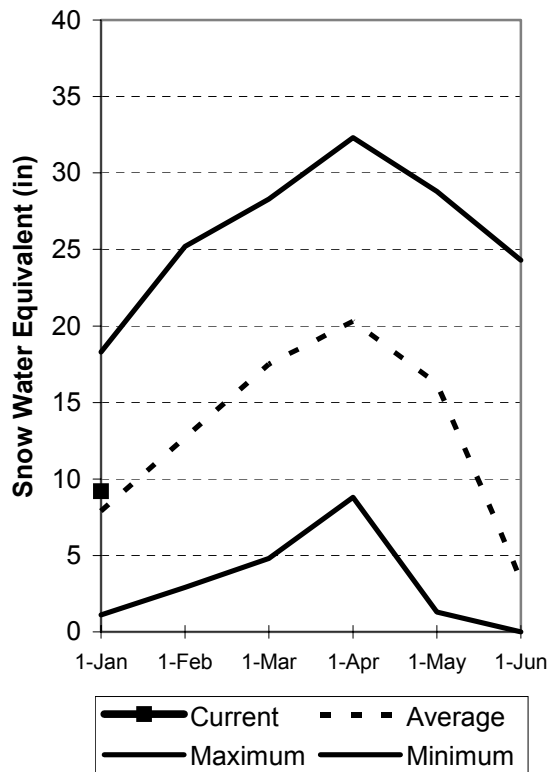
Bear River Basin

Jan 1, 2004

Snowpacks on the Bear River Basin are above average at 116% of normal, about 152% of last year. Specific sites range from 92% to 163% of normal. December precipitation was above average at 126%, which brings the seasonal accumulation (Oct-Dec) to 100% of average. Soil moisture levels in runoff producing areas indicate about 7 inches of deficit in the upper 2 feet of soil. Forecast streamflows are for much below normal (19%) to near normal volumes (100%) this spring. Reservoir storage is extremely low at 2% of capacity. The Surface Water Supply Index is at 2% for the Bear River, or 98% of years have had more total water available. Water supply conditions are much below normal due to low reservoir storage and soil moisture.

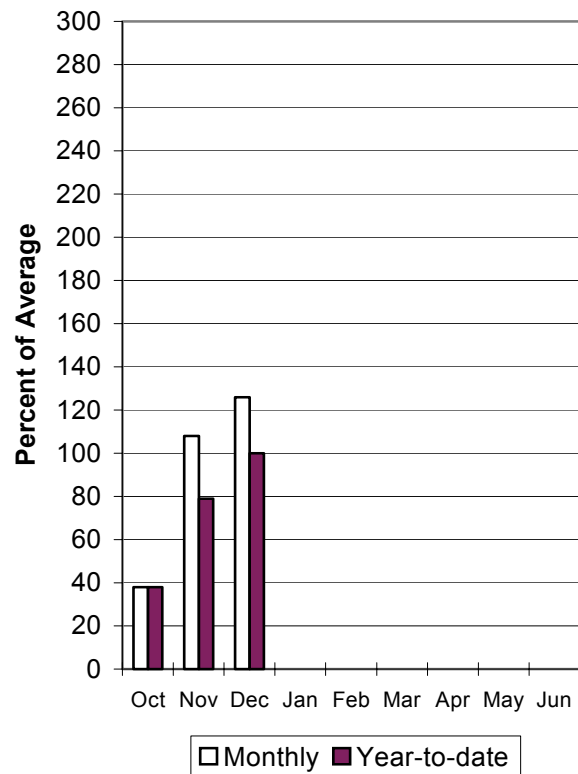
Bear River Snowpack

1/1/2004



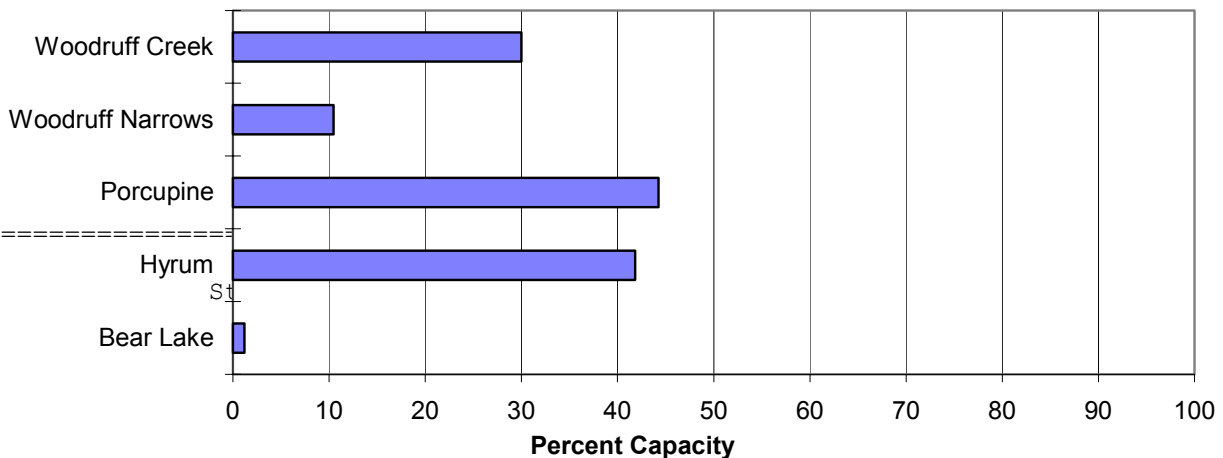
Bear River Precipitation

1/1/2004



Reservoir Storage

1/1/2004



	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%	30 Yr Avg	
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)	
Bear River nr UT-WY State Line							
APR-JUL	64	87	103	91	119	142	113
Bear River ab Reservoir nr Woodruff							
APR-JUL	21	58	83	61	108	145	136
Big Creek nr Randolph							
APR-JUL	0.42	1.90	2.90	59	3.90	5.40	4.90
Smiths Fork nr Border							
APR-JUL	52	74	89	86	104	126	103
Bear River at Stewart Dam							
APR-JUL	7.0	25	43	19	66	110	227
Little Bear River at Paradise							
APR-JUL	23	36	46	100	58	77	46
Logan River nr Logan combined flow							
APR-JUL	67	94	115	91	138	176	126
Blacksmith Fork nr Hyrum							
APR-JUL	23	35	44	92	54	72	48

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

BEAR RIVER BASIN				
Reservoir Storage (1000AF) End of December				
Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
BEAR LAKE	1302.0	15.7	352.0	----
HYRUM	15.3	6.4	6.0	10.2
PORCUPINE	11.3	5.0	5.4	3.9
WOODRUFF NARROWS	57.3	6.0	7.0	23.6
WOODRUFF CREEK	4.0	1.2	2.5	----

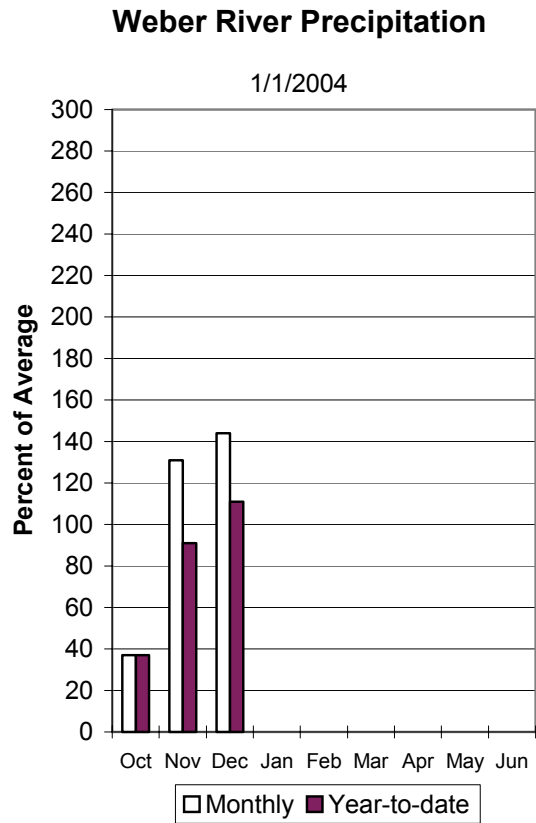
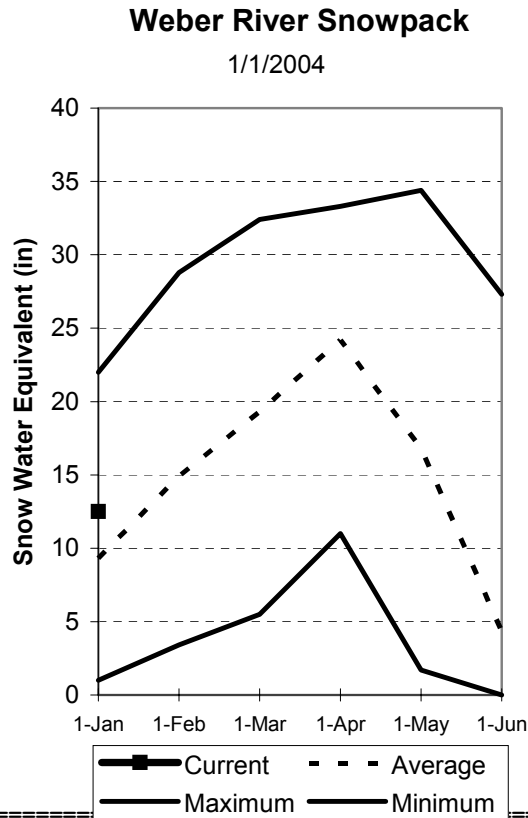
BEAR RIVER BASIN			
Watershed Snowpack Analysis - January 1, 2004			
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BEAR RIVER, UPPER (abv Harer	6	138	104
BEAR RIVER, LOWER (blw Harer	8	157	125
LOGAN RIVER	4	157	122
RAFT RIVER	1	175	124

BEAR RIVER BASIN	14	150	116
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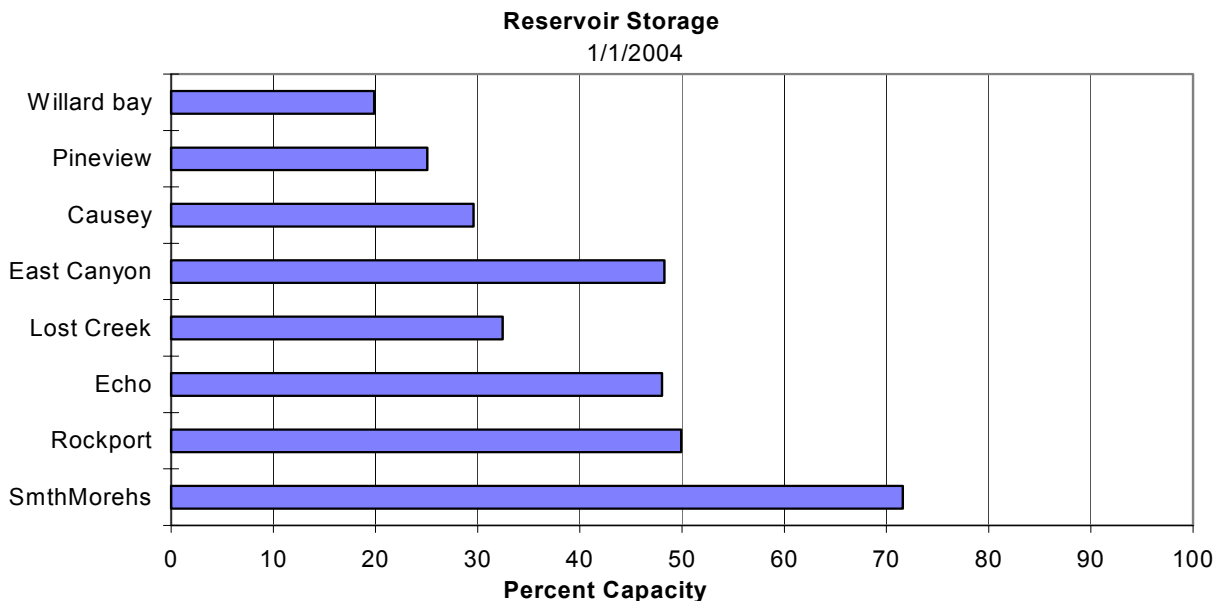
Weber and Ogden River Basins

Jan 1, 2004

Snowpack on the Weber and Ogden Watersheds is much above normal at 134% of average, about 175% of last year. Individual sites range from 98% to 215% of average. December precipitation was above average at 144% bringing the seasonal accumulation (Oct-Dec) to 111% of average. Soil moisture levels in runoff producing areas indicate about 7 inches of deficit in the upper 2 feet of soil. Streamflow forecasts range from 80% to 130% of average. Reservoir storage is at 32% of capacity, about 10% less (57,000 AF) than last year. Surface Water Supply Index is at 24% for the Weber River and at 33% for the Ogden River. Overall water supply conditions are below normal due to low reservoir storage and soil moisture conditions.



WEBER & OGDEN WATERSHEDS in Utah



Streamflow Forecasts - January 1, 2004

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	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	===== Chance of Exceeding * =====						
Forecast	90%	70%	50% (Most Prob)	30%	10%	30 Yr Avg	
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)	
=====							
Smith & Morehouse Res inflow							
APR-JUL	18.0	24	29	85	34	40	34
Weber River nr Oakley							
APR-JUL	65	90	106	86	122	147	123
Rockport Reservoir inflow							
APR-JUL	56	88	110	82	132	164	134
Weber River nr Coalville							
APR-JUL	55	89	112	82	135	169	137
Chalk Creek at Coalville							
APR-JUL	13.0	27	36	80	45	59	45
Echo Reservoir inflow							
APR-JUL	77	117	145	81	173	212	179
Lost Creek Reservoir inflow							
APR-JUL	6.3	11.0	15.0	85	19.6	28	17.6
East Canyon Reservoir inflow							
APR-JUL	19.7	28	34	110	41	52	31
Weber River at Gateway							
APR-JUL	187	269	325	92	380	465	355
SF Ogden River nr Huntsville							
APR-JUL	39	57	69	108	81	99	64
Pineview Reservoir inflow							
APR-JUL	81	114	137	103	160	193	133
Wheeler Creek nr Huntsville							
APR-JUL	5.10	6.90	8.10	129	9.30	11.10	6.30
=====							

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

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WEBER & OGDEN WATERSHEDS in Utah

Reservoir Storage (1000AF) End of December

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Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
CAUSEY	7.1	2.1	2.0	2.8
EAST CANYON	49.5	23.9	27.7	34.9
ECHO	73.9	35.5	30.0	47.9
LOST CREEK	22.5	1.3	6.2	14.1
PINEVIEW	110.1	27.6	23.2	52.9
ROCKPORT	60.9	30.4	30.3	36.2
WILLARD BAY	215.0	42.7	101.4	147.7

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WEBER & OGDEN WATERSHEDS in Utah

Watershed Snowpack Analysis - January 1, 2004

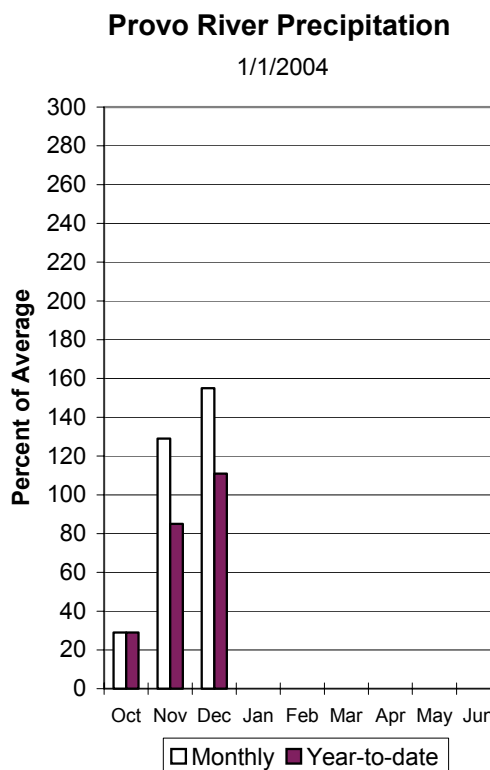
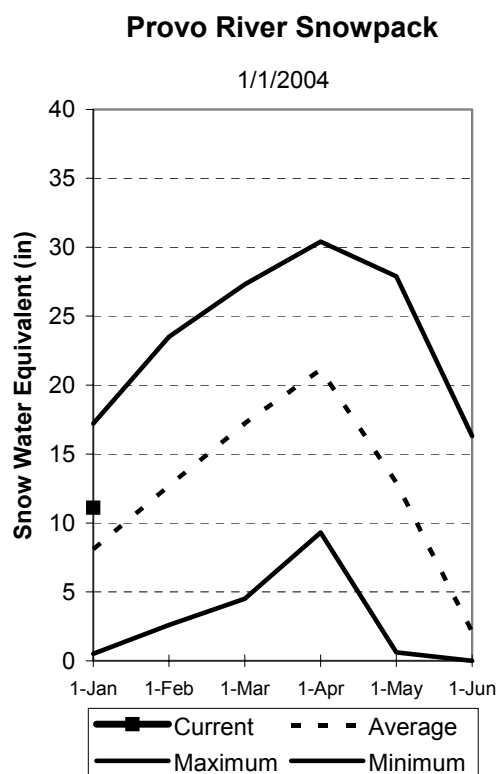
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Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
OGDEN RIVER	4	177	140
WEBER RIVER	9	181	130
WEBER & OGDEN WATERSHEDS in	13	180	134

Utah Lake, Jordan River & Tooele Valley Basins

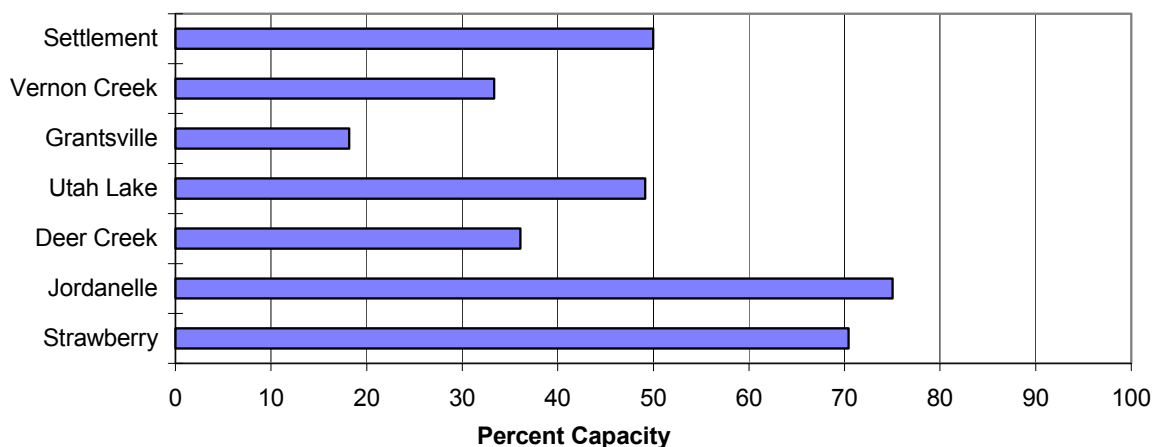
Jan 1, 2004

Snowpacks over these watersheds are at 135% of average, 206% of last year. The upper Provo area is at 123% of average. Individual sites range from 102% to 202% of average. December precipitation was much above average at 155%, bringing the seasonal accumulation (Oct-Dec) to 111% of average. Soil moisture levels in runoff producing areas indicate about 6.5 inches of deficit in the upper 2 feet of soil. Forecast streamflows range from 80% to 124% of average. Reservoir storage is at 61% of capacity, 5% less than last year. The Surface Water Supply Index is at 19%, or 81% of years would have more total water available. General water supply conditions are below normal due to low reservoir storage and soil moisture.



Reservoir Storage

1/1/2004



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Streamflow Forecasts - January 1, 2004

=====							
	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	===== Chance of Exceeding * =====						
Forecast	90%	70%	50% (Most Prob)	30%	10%	30 Yr Avg	
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)	
=====							
Spanish Fork River nr Castilla							
APR-JUL	36	60	84	109	108	132	77
Provo River nr Woodland							
APR-JUL	44	72	86	84	100	128	103
Provo River nr Hailstone							
APR-JUL	36	70	87	80	104	138	109
Provo R blw Deer Creek Dam							
APR-JUL	30	80	107	85	134	184	126
American Fk R nr American Fk							
APR-JUL	19.8	31	37	116	43	54	32
Utah Lake inflow							
APR-JUL	146	264	340	105	416	535	325
Little Cottonwood Ck nr SLC							
APR-JUL	30	40	45	113	50	56	40
Big Cottonwood Ck nr SLC							
APR-JUL	24	36	41	108	46	52	38
Mill Creek nr SLC							
APR-JUL	4.10	6.37	7.50	107	8.63	10.90	7.00
Parley's Creek nr SLC							
APR-JUL	7.8	17.5	18.0	108	18.5	28	16.7
Dell Fork nr SLC							
APR-JUL	2.80	5.48	7.30	107	9.12	11.90	6.80
Emigration Creek nr SLC							
APR-JUL	1.03	3.35	4.80	107	6.25	8.60	4.50
City Creek nr SLC							
APR-JUL	4.90	8.02	9.80	113	11.58	14.50	8.70
Vernon Creek nr Vernon							
APR-JUL	0.68	1.03	1.35	91	1.78	2.66	1.48
Settlement Creek nr Tooele							
APR-JUL	1.19	1.64	2.00	102	2.41	3.11	1.97
South Willow Creek nr Grantsville							
APR-JUL	2.20	3.30	4.00	124	4.70	5.80	3.23
=====							

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Reservoir Storage (1000AF) End of December

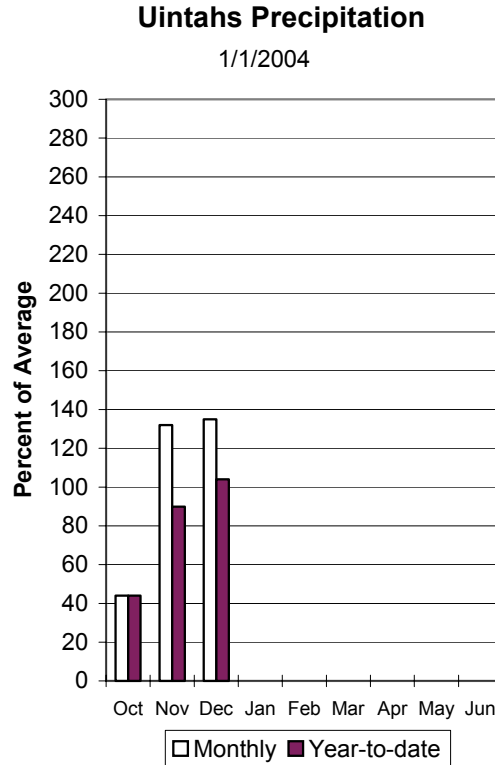
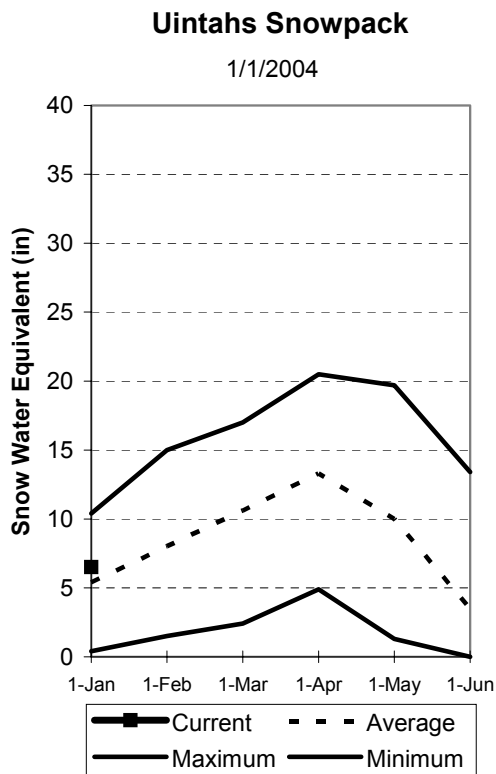
Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
DEER CREEK	149.7	54.0	71.9	102.0
GRANTSVILLE	3.3	0.6	1.1	1.6
SETTLEMENT CREEK	1.0	0.5	0.6	0.5
STRAWBERRY-ENLARGED	1105.9	778.9	814.0	640.0
UTAH LAKE	870.9	428.1	497.2	756.5
VERNON CREEK	0.6	0.2	0.4	----

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY
Watershed Snowpack Analysis - January 1, 2004

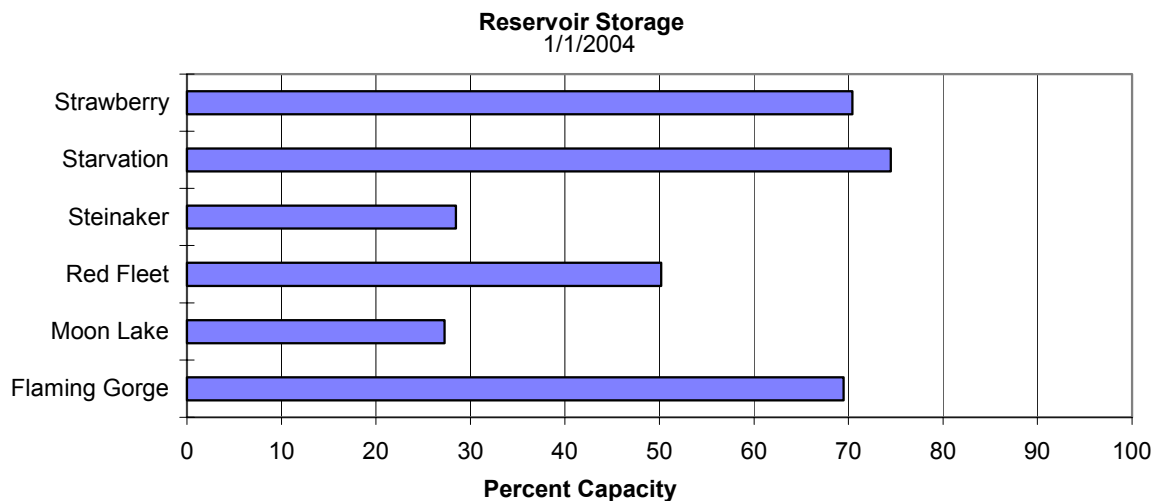
Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
PROVO RIVER & UTAH LAKE	7	185	122
PROVO RIVER	4	196	123
JORDAN RIVER & GREAT SALT LA	6	224	136
TOOELE VALLEY WATERSHEDS AND	3	247	161
UTAH LAKE, JORDAN RIVER & TO	16	210	134

Uintah Basin and Dagget SCD's **Jan 1, 2004**

Snowpacks across the Uintah Basin and North Slope areas are above average at 121%, which is 163% of last year. The North Slope ranges from 85% to 126% and the Uintah Basin ranges from 99% to 152% of average. Precipitation during December was much above average at 135% bringing the seasonal accumulation (Oct-Dec) to 104% of average. Soil moisture levels in runoff producing areas indicate about 7 inches of deficit in the upper 2 feet of soil. Reservoir storage is at 69% of capacity, 3% less than last year. The Surface Water Supply Index for the western area is 73% and for the eastern area it is 50% indicating average or better conditions. Springtime runoff conditions are near normal with the exception of soil moisture.



UINTAH BASIN & DAGGET SCD'S



Streamflow Forecasts - January 1, 2004

=====							
	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	===== Chance of Exceeding * =====						
Forecast	90%	70%	50% (Most Prob)	30%	10%	30 Yr Avg	
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)	(1000AF)	
=====							
Blacks Fork nr Robertson							
APR-JUL	52	70	83	87	96	114	95
EF of Smiths Fork nr Robertson							
APR-JUL	19.2	23	26	84	29	35	31
Flaming Gorge Reservoir Inflow							
APR-JUL	505	760	930	78	1100	1360	1190
BIG BRUSH CK abv Red Fleet Resv							
APR-JUL	14.4	18.9	22	105	25	30	21
Ashley Creek nr Vernal							
APR-JUL	32	46	55	106	64	78	52
WF DUCHESNE RIVER nr Hanna							
APR-JUL	12.3	18.3	23	96	28	37	24
DUCHESNE R nr Tabiona							
APR-JUL	65	84	96	91	108	127	105
UPPER STILLWATER RESV inflow							
APR-JUL	43	61	74	90	87	105	82
ROCK CK nr Mountain Home							
APR-JUL	49	65	77	87	89	105	89
DUCHESNE R abv Knight Diversion							
APR-JUL	88	130	158	84	184	229	188
STRAWBERRY RES nr Soldier Springs							
APR-JUL	28	48	64	109	83	115	59
CURRENT CREEK RESV Inflow							
APR-JUL	17.8	23	27	108	30	36	25
STARVATION RESERVOIR inflow							
APR-JUL	53	95	124	103	153	195	121
Lake Fork River abv Moon Lake							
APR-JUL	39	52	61	90	70	83	68
Yellowstone River nr Altonah							
APR-JUL	32	48	58	94	68	84	62
DUCHESNE R at Myton							
APR-JUL	87	163	215	83	265	345	260
Whiterocks River nr Whiterocks							
APR-JUL	29	46	58	104	70	87	56
DUCHESNE R nr Randlett							
APR-JUL	20	169	270	83	370	520	325

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
FLAMING GORGE	3749.0	2605.0	2632.0	3027.0
MOON LAKE	49.5	13.5	17.0	26.1
RED FLEET	25.7	12.9	10.5	17.5
STEINAKER	33.4	9.5	5.5	20.0
STARVATION	165.3	123.1	119.5	128.6
STRAWBERRY-ENLARGED	1105.9	778.9	814.0	640.0

UINTAH BASIN & DAGGET SCD'S
Watershed Snowpack Analysis - January 1, 2004

Watershed	Number of Data Sites	This Year as Last Year	Percent of Average
UPPER GREEN RIVER in UTAH (a	6	163	111
ASHLEY CREEK	2	205	136
BLACK'S FORK RIVER	2	124	91
SHEEP CREEK	1	255	97
DUCHESNE RIVER	11	163	124
LAKE FORK-YELLOWSTONE CREEKS	4	148	110
STRAWBERRY RIVER	4	182	140
UINTAH-WHITEROCKS RIVERS	2	166	130
UINTAH BASIN & DAGGET SCD'S	17	163	121

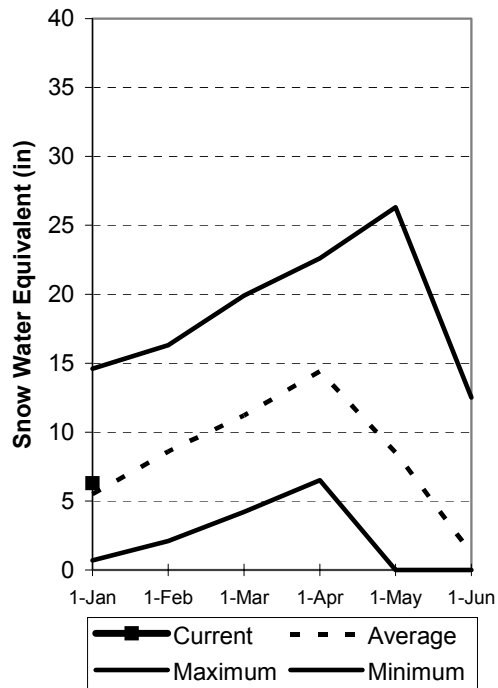
Carbon, Emery, Wayne, Grand and San Juan Co.

Jan 1, 2004

Snowpacks in this region are a little above normal at 114% of average, about 133% of last year. Individual sites range from 60% to 142% of average. Precipitation during December was much above average at 149%, bringing the seasonal accumulation (Oct-Dec) to 103% of normal. Soil moisture levels in runoff producing areas indicate about 7 inches of deficit in the upper 2 feet of soil. Forecast streamflows range from 88% to 114% of average. Reservoir storage is at 37% of capacity, up 7% from last year. Surface Water Supply Indexes for the area are: Price 32%, (below normal) San Rafael area 55% (average) and Moab 56% (average). General runoff and water supply conditions are below to near normal due to low reservoir storage and soil moisture.

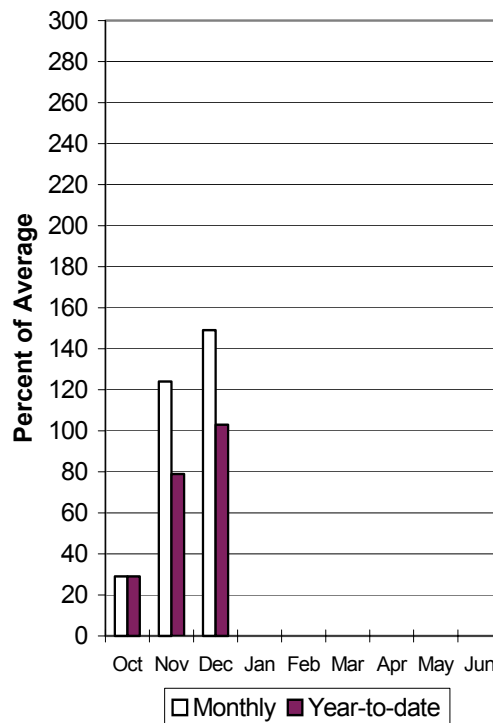
Southeast Utah Snowpack

1/1/2004



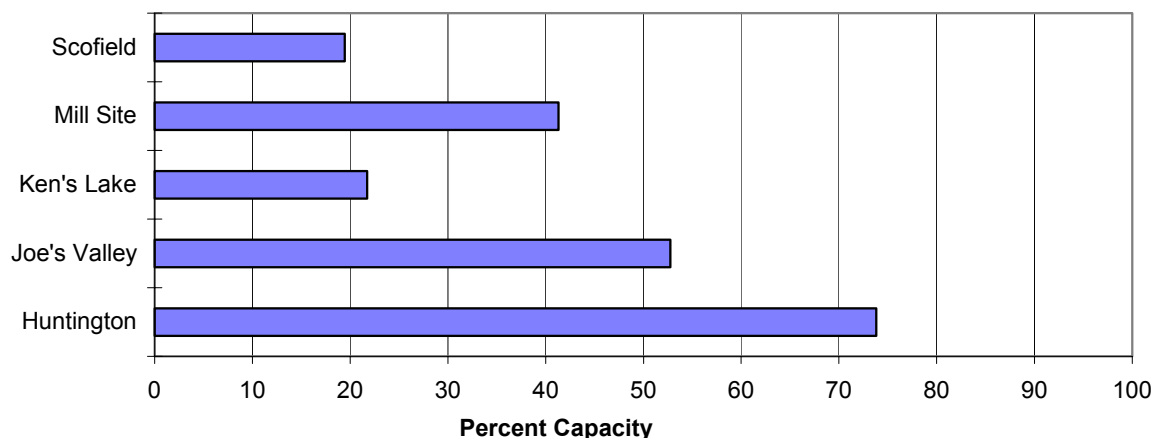
Southeast Utah Precipitation

1/1/2004



Reservoir Storage

1/1/2004



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Streamflow Forecasts - January 1, 2004

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
Gooseberry Creek nr Scofield							
APR-JUL	6.1	9.5	11.8	99	14.1	17.5	11.9
Scofield Reservoir inflow							
APR-JUL	29	39	46	100	53	63	46
White River blw Tabbyune Creek							
APR-JUL	8.3	13.8	18.3	105	24	32	17.4
Green River at Green River, UT							
APR-JUL	1490	2270	2800	88	3330	4110	3170
Electric Lake inflow							
APR-JUL	6.5	10.7	14.4	92	18.8	27	15.7
HUNTINGTON CK nr Huntington							
APR-JUL	25	38	47	94	56	69	50
JOE'S VALLEY RESV Inflow							
APR-JUL	29	45	56	97	67	83	58
Ferron Creek nr Ferron							
APR-JUL	23	31	38	97	45	58	39
Colorado River nr Cisco							
APR-JUL	2190	3240	4000	86	4760	5810	4650
Mill Creek at Sheley Tunnel nr Moab							
APR-JUL	2.20	4.50	6.00	120	7.50	9.80	5.00
Seven Mile Creek nr Fish Lake							
APR-JUL	4.10	6.40	8.00	114	9.60	11.90	7.00
Muddy Creek nr Emery							
APR-JUL	10.0	16.6	21	106	25	32	19.9
North Ck ab R.S. nr Monticello							
MAR-JUL	0.11	0.22	1.03	76	2.44	5.61	1.35
South Ck ab Lloyd's Res nr Monticello							
MAR-JUL	0.30	0.90	1.50	115	2.25	3.63	1.31
Recapture Ck bl Johnson Ck nr Blanding							
MAR-JUL	1.52	3.00	5.50	90	8.00	11.60	6.10
San Juan River nr Bluff							
APR-JUL	870	1190	1400	114	1610	1930	1230

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
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HUNTINGTON NORTH	4.2	3.1	1.0	2.4
JOE'S VALLEY	61.6	32.5	21.9	41.0
KEN'S LAKE	2.3	0.5	0.5	1.0
MILL SITE	16.7	6.9	8.5	75.0
SCOFIELD	65.8	12.8	13.6	32.7

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.
Watershed Snowpack Analysis - January 1, 2004

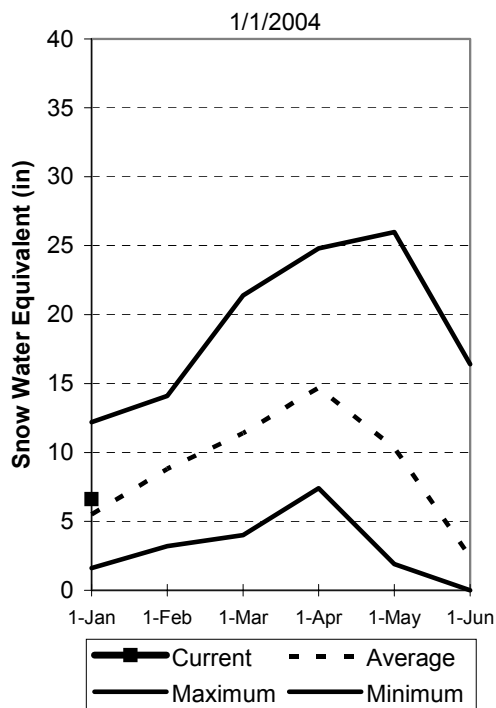
Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
PRICE RIVER	3	136	120
SAN RAFAEL RIVER	3	123	111
MUDDY CREEK	1	121	125
FREMONT RIVER	3	116	100
LASAL MOUNTAINS	1	176	128
BLUE MOUNTAINS	1	158	93
WILLOW CREEK	1	210	145
CARBON, EMERY, WAYNE, GRAND,	13	133	114

Sevier and Beaver River Basins

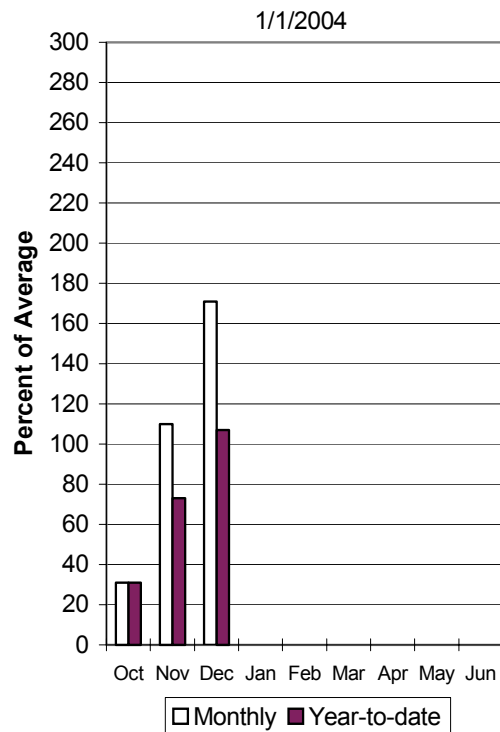
Jan 1, 2004

Snowpacks on the Sevier River Basin are above normal at 120% of average, about 157% of last year. Individual sites range from 99% to 189% of average. Precipitation during December was much above average at 171% of normal, bringing the seasonal accumulation (Oct-Dec) to 107% of average. Soil moisture levels in runoff producing areas indicate about 7 inches (Sevier) and 9 inches (Beaver) of deficit in the upper 2 feet of soil. Streamflow forecasts range from 36% to 111% of average. Reservoir storage is at 15% of capacity, 7% less than last year. Surface Water Supply Indexes are: Upper Sevier 39%, Lower Sevier 46% and Beaver 32%. Water supply conditions remain below normal due to low reservoir storage and soil moisture.

Sevier River Snowpack

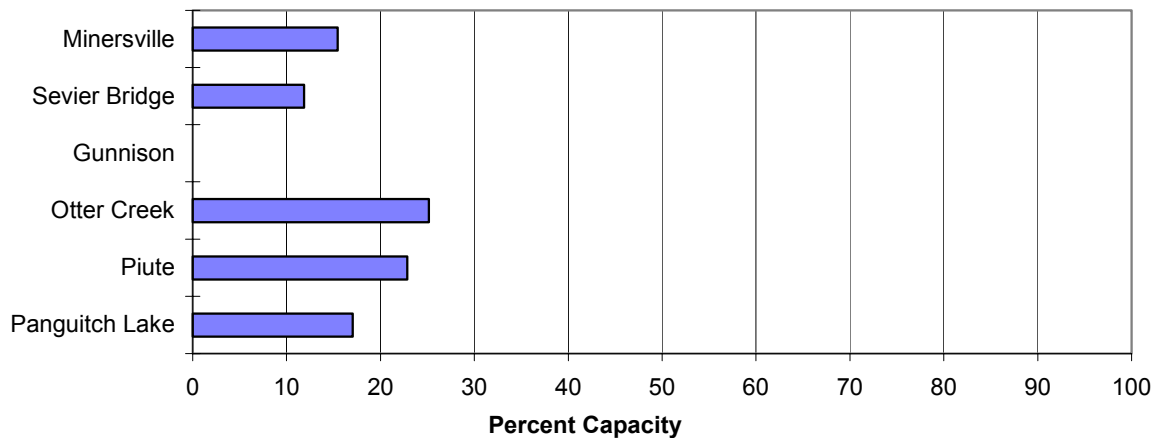


Sevier River Precipitation



Reservoir Storage

1/1/2004



SEVIER & BEAVER RIVER BASINS
Streamflow Forecasts - January 1, 2004

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
Sevier River at Hatch							
APR-JUL	25	47	63	115	80	101	55
Sevier River nr Kingston							
APR-JUL	51	79	99	111	119	148	89
EF Sevier R nr Kingston							
APR-JUL	8.0	24	34	90	45	60	38
Sevier R blw Piute Dam							
APR-JUL	57	95	126	100	157	195	126
Clear Creek nr Sevier							
APR-JUL	9.9	19.0	24	109	29	38	22
Sevier R nr Gunnison							
APR-JUL	62	196	280	100	364	495	280
Chicken Creek nr Levan							
APR-JUL	1.51	3.03	4.50	100	6.38	9.99	4.50
Oak Creek nr Oak City							
APR-JUL	0.94	1.39	1.75	105	2.15	2.82	1.66
Beaver River nr Beaver							
APR-JUL	11.8	16.3	20	74	24	31	27
Minersville Reservoir inflow							
APR-JUL	0.7	3.3	6.0	36	9.6	16.4	16.6

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

SEVIER & BEAVER RIVER BASINS
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
GUNNISON	20.3	0.0	0.6	10.9
MINERSVILLE (RkyFd)	23.3	3.6	3.5	12.7
OTTER CREEK	52.5	13.2	18.2	32.8
PIUTE	71.8	16.4	2.5	42.1
SEVIER BRIDGE	236.0	28.0	65.5	148.9
PANGUITCH LAKE	22.3	3.8	2.3	108.0

SEVIER & BEAVER RIVER BASINS

Watershed Snowpack Analysis - January 1, 2004

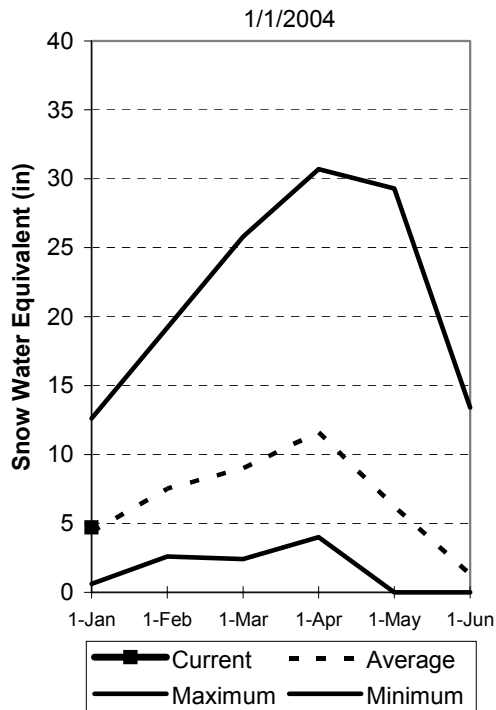
Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER SEVIER RIVER (south of	8	172	126
EAST FORK SEVIER RIVER	3	150	117
SOUTH FORK SEVIER RIVER	5	189	131
LOWER SEVIER RIVER (includin	6	150	119
BEAVER RIVER	2	135	107
SEVIER & BEAVER RIVER BASINS	16	157	120

E. Garfield, Kane, Washington, & Iron co.

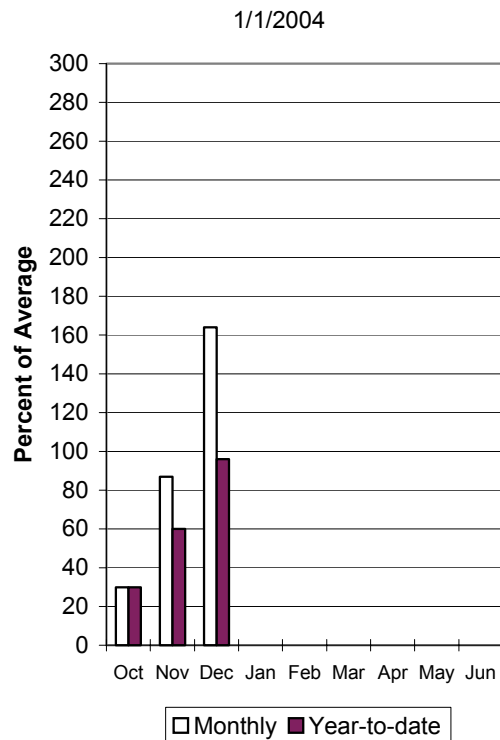
Jan 1, 2004

Snowpacks in this region are near normal at 107% of average, about 158% of last year. Individual sites range from 10% to 132% of average. Precipitation was much above normal during December at 164% of average, bringing the seasonal accumulation (Oct-Dec) to 96% of normal. Soil moisture levels in runoff producing areas indicate about 7 inches of deficit in the upper 2 feet of soil. Forecast streamflows range from 84% to 102% of average. Reservoir storage is at 28% of capacity, 3% more than last year. The Surface Water Supply Index is at 57%, indicating near normal water availability. Concerns remain over low reservoir storage, soil moisture and snowpacks in the lower elevations.

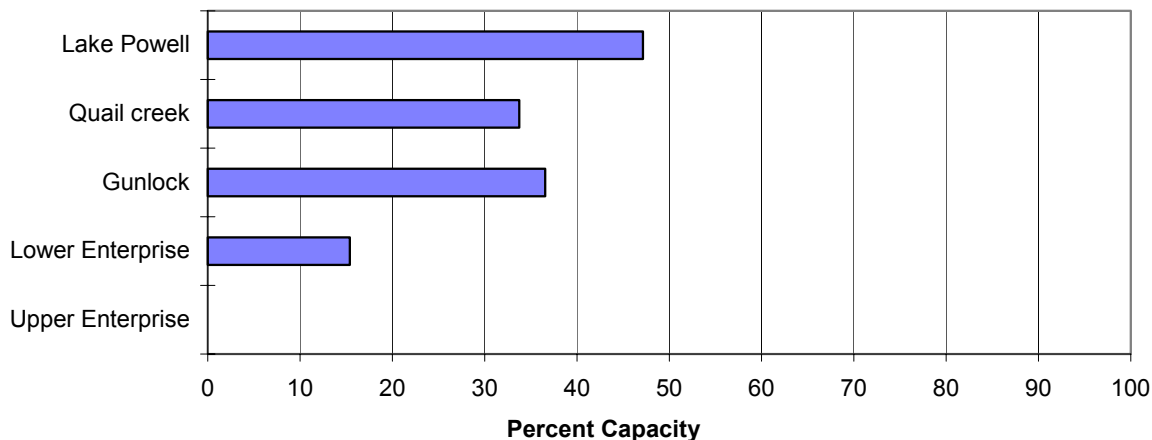
Southwest Utah Snowpack



Southwest Utah Precipitation



Reservoir Storage 1/1/2004



E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Streamflow Forecasts - January 1, 2004

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
Lake Powell inflow							
APR-JUL	3570	5690	7100	90	8510	10580	7930
Virgin River nr Virgin							
APR-JUL	24	46	65	102	88	127	64
Virgin River nr Hurricane							
APR-JUL	31	53	68	99	83	105	69
Santa Clara River nr Pine Valley							
APR-JUL	1.13	2.91	4.60	84	6.67	10.42	5.50
Coal Creek nr Cedar City							
APR-JUL	7.0	12.1	16.4	85	21	30	19.3

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
GUNLOCK	10.4	3.8	3.3	5.7
LAKE POWELL	24322.0	11471.0	13788.0	----
QUAIL CREEK	40.0	13.5	12.0	23.9
UPPER ENTERPRISE	10.0	0.0	0.0	----
LOWER ENTERPRISE	2.6	0.4	0.4	26.7

E. GARFIELD, KANE, WASHINGTON, & IRON Co.
Watershed Snowpack Analysis - January 1, 2004

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
VIRGIN RIVER	5	189	126
PAROWAN	2	184	126
ENTERPRISE TO NEW HARMONY DR	2	117	55
COAL CREEK	2	189	116
ESCALANTE RIVER	2	116	81
E. GARFIELD, KANE, WASHINGTO	9	158	107

UTAH SURFACE	WATER	SUPPLY	INDEX
Snow Surveys	NRCS	USDA	
Basin or Region	SWSI/%	Percentile	Years with
			Similar SWSI
Bear River	-3.98	2%	2003,93,92,91
Ogden River	-1.5	33%	91,68,70,66
Weber River	-2.2	24%	2001,91,87,94
Tooele Valley	NA		
Provo	-2.4	21%	56,55,64,2002
North Slope	NA		
West Uintah Basin	1.9	73%	96,86,01,2000
East Uintah Basin	0	50%	91,2001,97,85
Price River	-1.5	32%	98,62,93,94
San Rafael	.4	55%	2000,74,82,98
Moab	.5	56%	96,94,95,98
Upper Sevier River	-.9	39%	67,99,66,78
Lower Sevier River	-.4	46%	94,76,89,81
Beaver River	-1.5	32%	91,92,2001,65
Virgin River	.6	57%	94,2001,97,2000
Snow Surveys			SWSI Scale: -4 to 4
245 N Jimmy Doolittle Rd			Percentile: 0 - 100%
Salt Lake City, UT			
(801) 524-5213			

S N O W C O U R S E D A T A

JANUARY 2004

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	1/01	20	3.0	1.4	2.9
ALTA CENTRAL	8800	12/31	80	20.0	10.4	16.5
BEAVER DAMS SNOTEL	8000	1/01	-	4.3	5.0	4.3
BEAVER DIVIDE SNOTEL	8280	1/01	27	4.8	3.8	4.7
BEN LOMOND PK SNOTEL	8000	1/01	92	23.6	12.5	14.5
BEN LOMOND TR SNOTEL	6000	1/01	72	16.3	7.9	8.5
BEVAN'S CABIN	6450				-	4.2
BIG FLAT SNOTEL	10290	1/01	39	7.5	6.8	7.6
BIRCH CROSSING	8100				-	2.8
BLACK FLAT-U.M. CK S	9400	1/01	29	5.4	3.4	3.8
BLACK'S FORK GS-EF	9340				-	3.3
BLACK'S FORK JUNCTN	8930				-	3.7
BOX CREEK SNOTEL	9800	1/01	34	7.3	4.7	5.3
BRIAN HEAD	10000				-	8.2
BRIGHTON SNOTEL	8750	1/01	51	11.2	5.8	10.9
BRIGHTON CABIN	8700	12/30	69	13.2	8.8	11.5
BROWN DUCK SNOTEL	10600	1/01	48	7.6	6.0	7.7
BRYCE CANYON	8000	1/04	15	2.8	-	2.1
BUCK FLAT SNOTEL	9800	1/01	38	8.6	7.8	7.2
BUCK PASTURE	9700				-	-
BUCKBOARD FLAT	9000				-	5.4
BUG LAKE SNOTEL	7950	1/01	46	9.2	6.7	8.3
BURT'S-MILLER RANCH	7900				-	2.2
CAMP JACKSON SNOTEL	8600	1/01	26	5.2	3.3	5.6
CASCADE MOUNTAIN	7770	1/01	50	12.0	5.2	-
CASTLE VALLEY SNOTEL	9580	1/01	34	6.4	3.1	4.9
CHALK CK #1 SNOTEL	9100	1/01	47	9.7	7.2	10.1
CHALK CK #2 SNOTEL	8200	1/01	30	6.9	5.2	6.7
CHALK CREEK #3	7500				-	3.5
CHEPETA SNOTEL	10300	1/01	-	6.8	4.0	6.0
CLAYTON SPRINGS SNTL	10000	1/01	29	5.4	3.4	-
CLEAR CK RIDG #1 SNT	9200	1/01	40	9.3	5.9	7.7
CLEAR CK RIDG #2 SNT	8000	1/01	38	7.4	4.8	6.0
CORRAL	8200				-	-
CURRANT CREEK SNOTEL	8000	1/01	33	6.4	2.1	4.2
DANIELS-STRAWBERRY S	8000	1/01	41	9.4	5.0	6.5
DILL'S CAMP SNOTEL	9200	1/01	35	6.9	5.7	5.5
DONKEY RESERVOIR SNO	9800	1/01	18	2.4	3.2	4.0
DRY BREAD POND SNTL	8350	1/01	47	8.8	6.3	9.1
DRY FORK SNOTEL	7160	1/01	-	8.8	4.2	6.9
EAST WILLOW CREEK SN	8250	1/01	24	4.2	2.0	2.9
FARMINGTON CN SNOTEL	8000	1/01	95	23.8	11.4	13.0
FARMINGTON CANYON L.	6950				-	10.4
FARNSWORTH LK SNOTEL	9600	1/01	43	8.9	5.1	8.0
FISH LAKE	8700				-	2.9
FIVE POINTS LAKE SNO	10920	1/01	44	8.6	5.7	7.0
G.B.R.C. HEADQUARTER	8700				-	-
G.B.R.C. MEADOWS	10000				-	9.7
GARDEN CITY SUMMIT	7600				-	6.5
GEORGE CREEK	8840				-	-
GOOSEBERRY R.S.	8400				-	5.1
GOOSEBERRY R.S. SNTL	7900	1/01	25	5.3	2.7	3.6
HARDSCRABBLE SNOTEL	7250	1/01	-	14.0	5.9	6.5
HARRIS FLAT SNOTEL	7700	1/01	14	3.3	2.0	2.5
HAYDEN FORK SNOTEL	9100	1/01	28	5.8	6.5	6.3
HENRY'S FORK	10000				-	-
HEWINTA SNOTEL	9500	1/01	21	4.1	4.0	4.1
HICKERSON PARK SNTL	9100	1/01	18	2.8	1.1	2.9
HIDDEN SPRINGS	5500	12/30	32	6.8	1.2	.2
HOBBLE CREEK SUMMIT	7420				-	6.1
HOLE-IN-ROCK SNOTEL	9150	1/01	19	3.2	2.3	2.7
HORSE RIDGE SNOTEL	8260	1/01	53	10.3	8.2	9.3
HUNTINGTON-HORSESHOE	9800				-	9.7
INDIAN CANYON SNOTEL	9100	1/01	29	6.1	4.4	4.4
JOHNSON VALLEY	8850				-	2.7
JONES CORRAL G.S.	9720				-	-
KILFOIL CREEK	7300				-	5.5
KILLYON CANYON	6300	12/31	45	9.4	1.5	5.1

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KIMBERLY MINE SNOTEL	9300	1/01	-	7.4	3.8	6.0
KING'S CABIN SNOTEL	8730	1/01	33	7.2	3.8	5.0
KLONDIKE NARROWS	7400				-	7.5
KOLOB SNOTEL	9250	1/01	41	8.8	4.8	6.9
LAKEFORK #1 SNOTEL	10100	1/01	35	6.3	4.4	5.6
LAKEFORK BASIN SNTL	10900	1/01	48	8.8	5.0	8.2
LAKEFORK MOUNTAIN #3	8400				-	2.8
LAMBS CANYON	7400				5.3	7.4
LASAL MOUNTAIN LOWER	8800				-	3.8
LASAL MOUNTAIN SNTL	9850	1/01	32	6.0	3.4	4.7
LILY LAKE SNOTEL	9050	1/01	25	5.6	4.8	5.5
LITTLE BEAR LOWER	6000				-	4.3
LITTLE BEAR SNOTEL	6550	1/01	-	8.5	3.3	5.2
LITTLE GRASSY SNOTEL	6100	1/01	-	0.2	1.3	2.1
LONG FLAT SNOTEL	8000	1/01	-	2.5	1.0	2.8
LONG VALLEY JCT. SNT	7500	1/01	-	3.4	1.4	1.8
LOOKOUT PEAK SNOTEL	8200	1/01	-	18.0	8.8	9.9
LOST CREEK RESERVOIR	6130				-	2.0
LOUIS MEADOW SNOTEL	6700	1/01	69	14.7	5.5	-
MAMMOTH-COTTONWD SNT	8800	1/01	34	9.0	8.2	7.6
MERCHANT VALLEY SNTL	8750	1/01	32	6.4	3.5	5.4
MIDDLE CANYON	7000				-	5.9
MIDWAY VALLEY SNOTEL	9800	1/01	47	11.1	6.4	9.0
MILL CREEK	6950				3.6	8.3
MILL-D NORTH SNOTEL	8960	1/01	-	13.7	5.6	10.3
MILL-D SOUTH FORK	7400	12/31	48	11.7	6.0	8.6
MINING FORK SNOTEL	8000	1/01	46	11.1	5.3	5.5
MONTE CRISTO SNOTEL	8960	1/01	51	11.7	7.5	11.0
MOSBY MTN. SNOTEL	9500	1/01	38	7.6	4.7	5.1
MT.BALDY R.S.	9500				-	9.9
MUD CREEK #2	8600				-	5.3
OAK CREEK	7760				-	-
PANGUITCH LAKE R.S.	8200				-	-
PARLEY'S CANYON SNTL	7500	1/01	58	9.7	4.5	7.2
PARRISH CREEK SNOTEL	7740	1/01	79	17.9	7.6	-
PAYSON R.S. SNOTEL	8050	1/01	42	8.4	4.3	7.2
PICKLE KEG SNOTEL	9600	1/01	35	7.4	6.0	6.2
PINE CREEK SNOTEL	8800	1/01	-	11.0	3.5	8.8
RED PINE RIDGE SNTL	9200	1/01	36	7.3	6.0	6.7
REDDEN MINE LOWER	8500				-	6.7
REES'S FLAT	7300				-	5.6
ROCK CREEK SNOTEL	7900	1/01	-	4.8	3.2	3.7
ROCKY BN-SETTLEMT SN	8900	1/01	51	11.6	5.3	10.0
SEELEY CREEK SNOTEL	10000	1/01	28	6.7	4.5	6.4
SMITH MOREHOUSE SNTL	7600	1/01	30	5.6	3.1	5.7
SNOWBIRD SNOTEL	9700	1/01	83	18.3	7.8	13.2
SPIRIT LAKE	10300				-	5.5
SQUAW SPRINGS	9300				-	3.2
STEEL CREEK PARK SNO	10100	1/01	27	5.7	3.9	6.7
STILLWATER CAMP	8550				-	3.9
STRAWBERRY DIVIDE SN	8400	1/01	45	9.5	5.8	7.4
SUSC RANCH	8200				-	2.8
TALL POLES	8800				-	5.3
TEMPLE FORK SNOTEL	7410	1/01	45	8.4	6.8	-
THAYNES CANYON SNTL	9200	1/01	50	11.0	6.6	9.0
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	1/01	63	13.2	5.4	9.2
TONY GROVE LK SNOTEL	8400	1/01	75	17.1	11.4	14.3
TONY GROVE R.S.	6250				-	5.0
TRIAL LAKE	9960				-	9.8
TRIAL LAKE SNOTEL	9960	1/01	61	10.7	6.2	10.5
TROUT CREEK SNOTEL	9400	1/01	31	5.3	2.3	4.2
UPPER JOES VALLEY	8900				-	4.1
VERNON CREEK SNOTEL	7500	1/01	39	8.7	2.1	4.0
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	1/01	27	6.3	2.8	6.0
WHITE RIVER #1 SNTL	8550	1/01	31	6.4	4.0	5.2
WHITE RIVER #3	7400				-	3.5
WIDTSOE #3 SNOTEL	9500	1/01	24	4.4	3.9	4.4
WRIGLEY CREEK	9000				-	4.3
YANKEE RESERVOIR	8700				-	3.7